REMARKS

The Office Action mailed February 17, 2005, has been received and reviewed. Claims 1 through 50 are currently pending in the application. Claims 1 through 3, 15, 43, 45 through 47, 49 and 50 stand rejected. Claims 4, 19, 21, 44 and 50 are objected to due to informalities in the claim language. Claims 22 through 42 have been allowed. Applicants have amended claims 1, 19, 21, 44, and 50. Applicants respectfully request reconsideration of the application as amended herein.

The amendment to claim 1 herein distinguishes the subject matter thereof from the Tuganov et al. reference in a manner similar to that of indicated-to-be-allowable claim 17, but more broadly encompasses the various aspects of the present invention.

Claim Objections

Claims 4 and 44 are objected to because the Office Action states that the elements of "target surface roughness" and "presence of asperities" are the same thing and thus is a duplicate limitation in claims 4 and 44.

Applicants respectfully disagree. A dictionary definition of asperity may include the meaning "roughness of surface." However, Applicants assert that asperity may also mean "a tiny projection from a surface" as defined in the online Merriam-Webster Online Dictionary (http://www.m-w.com/cgi-bin/dictionary?book=Dictionary&va=asperity). Therefore, Applicants assert that "target surface roughness" and "presence of asperities" are not necessarily the same thing. While a presence of asperities may cause a target surface roughness, the target surface roughness also may be caused by other phenomena or structures. Reconsideration and withdrawal of the objection is respectfully requested.

Claims 29, 44, and 50 are objected to because "consisting of' should be used rather than "comprising" for proper Markush terminology. Appropriate corrections have been made.

Claim 21 is objected to because it contains all of the same limitations as claim 19. Claim 21 has been amended to depend from claim 20 rather than claim 19. With this amendment, claim 21 no longer contains all the same limitations as claim 19.

35 U.S.C. § 102 (b) Anticipation Rejections

Anticipation Rejection Based on U.S. Patent No. 6,330,253 to Tuganov et al.

Claims 1 and 2 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Tuganov et al. (U.S. Patent No. 6,330,253). Applicants respectfully traverse this rejection, as hereinafter set forth.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Claim 1 has been amended to include the recitation of "a sensor configured to emit a first energy beam relative to the surface, detect a second energy beam therefrom and provide an output signal from which at least one characteristic associated with the surface may be determined. . . ." This recitation is similar to the subject matter of claim 17, which the Examiner has indicated as allowable, but encompasses the broader and more varied aspects of the present invention. It is respectfully asserted that amended claim 1, as amended, is now allowable and Applicants respectfully request that the rejection of claim 1 be withdrawn.

Claim 2 depends from now allowable claim 1. As a result, at least by virtue of its dependency from claim 1, claim 2 is now allowable and Applicants respectfully request that the rejection of claim 2 be withdrawn.

Double Patenting Rejection Based on U.S. Patent No. 6,811,657

Claims 1 through 3, 15, 43, 45 through 47, 49 and 50 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 4, 9, 33, 38 through 40, 42 and 43 of U.S. Patent No. 6,811,657. In order to avoid further expenses and time delay, Applicants elect to expedite the prosecution of the present application by filing a terminal disclaimer to obviate the double patenting rejections in compliance with 37 CFR §1.321 (b) and (c). Applicants' filing of the terminal disclaimer should not be construed as acquiescence

of the Examiner's double patenting or obviousness-type double patenting rejections. Attached is the terminal disclaimer and accompanying fee.

Allowable Subject Matter

Applicants note with appreciation the allowance of claims 22-42.

Claims 4-14, 16-18, 20, and 48 are objected to as depending from a rejected base claim but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants note the indication of allowable subject matter with appreciation.

Claims 19, 21, and 44 are indicated as allowable if amended to overcome the claim objections presented above in the Claim Objections section.

Regarding claims 4-14, 16, 18, and 20, these claims depend from now allowable claim 1. As a result, at least by virtue of their dependency from claim 1, claims 4-14, 16, 18, and 20 are now in allowable form and Applicants respectfully request that the objection to claims 4-14, 16, 18, and 20 be withdrawn.

Regarding claim 48, this claim depends from claim 47, which is now allowable due to the filing of a terminal disclaimer to obviate the double patenting rejection of claim 47. As a result, at least by virtue of its dependency from claim 47, claim 48 is now allowable and Applicants respectfully request that the objection to claim 48 be withdrawn.

Claims 19, 21, and 44 have been amended to overcome the objections presented above and are therefore now allowable.

ENTRY OF AMENDMENTS

The amendments to claims 1, 19, 21, 44, and 50 above should be entered by the Examiner because the amendments are supported by the as-filed specification and drawings and do not add any new matter to the application. Further, the amendments do not raise new issues or require a further search.

CONCLUSION

Claims 1-16 and 18-50 are believed to be in condition for allowance, and an early notice thereof is respectfully solicited. Should the Examiner determine that additional issues remain which might be resolved by a telephone conference, he is respectfully invited to contact Applicants' undersigned attorney.

Respectfully submitted,

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